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A REVIEW ON THE MANAGEMENT OF PRAMEHA UPADRAVA WITH SPECIAL REFERENCE TO THE DOSHA PREDOMINANCE

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ABSTRACT: Diabetes Mellitus (DM) and its morbid complication are imparting heavy burden to individuals and the healthcare system. Ayurveda offers a wide range of therapeutics for the long term management and prevention of complications. Prameha and Madhumeha are used as synonyms in the context of *Upadrava*. Prameha Upadrava develops due to improper treatment or excessive vitiation of dhatus. Upadravas are classified as doshabhedena (Vatika, Paithika, and Kaphaja Prameha Upadrava) and the Pidakas. The line of management of all upadrava can be derived from the pidaka chikitsa as for other Upadravas, start treating in the Prameha Purva rupa stages itself. If not, do Prameha Chikitsa- Urdha adhah sodhana. These two stages are for the prevention of complications. If purva rupa or rupa of any upadrva is manifested, do symptomatic management accordingly by giving special care to Prameha. For this, formulations having common indication of Prameha and that particular upadrava should be used. The complications of DM like Neuropathy, Retinopathy, Nephropathy, Impotency, Cardiac complaints etc should be understood in Ayurvedic perspective. From the currently available literature, these complications are approached differently by using different formulations. Maximum works are done in Diabetic neuropathy. Attempts should be made to form Chikitsa sutra for every upadrava incorporating the insights from our Science as well as the current researches.

KEY WORDS: Madhumeha Upadrava; Diabetic complications; Chikitsa sutra; Evidence based practice

Introduction:

Diabetes Mellitus (DM) is emerged as a pandemic as approximately 463 million adults are living with the diabetes by the year 2019[1]. The escalating prevalence in India is imparting heavy burden to the health care system not only because of the morbid complications but also due to the premature onset of DM in Indian population. According to the recent surveys, 10-16% of urban population and 5-8% of rural population of India is affected by DM [2] causing the title as diabetes capital of the world. The lifelong sufferings associated diabetes and its complications, individuals are unable to cope with the physical, psychological, social economical burden of DM. Ayurveda, being a holistic medical system can contribute much to the long term management as well as prevention of DM and its complications.

Madhumeha is a Vatika Prameha and it manifest either due to Dhatukhaya or Avarana [3]. The end stage of all types of Prameha which are not managed properly will be Madhumeha itself [4]. Prameha and Madhumeha are used as synonyms in the context of Upadrava. According to Sushruta, all Prameha PIJAR/July-August-2020/VOLUME-5/ISSUE-4

which are *Pidaka peedita* (troubled by carbuncles) and with other complications can be referred as *Madhumeha*. In both cases, sweet taste of urine with honey smell will be present [5]. *Upadrava* (complication) is an episode of a morbid event which develops by the factors which are responsible for the manifestation of main disease and usually develops after a disease. It may be gross (Sthoola) or subtle (Anu) in nature. It subsides by treating the main disease and should not be contradictory to the treatment of the main disease [6]. So, the term 'Prameha upadrava' (PU) denotes all complications associated with Prameha which may occur at any stage of the pathogenesis.

Diabetic complications are broadly divided into small vessel or micro vascular disease and large vessel or macro vascular disease. Microvascular complications affect the retina known as diabetic retinopathy, the kidney termed as diabetic nephropathy and the peripheral nerves termed as diabetic neuropathy. The macrovascular complications affect the heart, the brain and the peripheral arteries termed as cardiovascular disease, cerebrovascular disease and

peripheral vascular disease, respectively. The PU are classified as Vatika/Paithika / Kaphaja upadravas and the Prameha pitakas. Alongside, some of the symptom in the purva rupa persists as upadrava as like Makshikopasarpana, alasya, karapada daha etc. We need to understand the pathogenesis and derive the line of management of complications of DM in an Ayurvedic perspective for the safe and effective Ayurvedic management.

Pathogenesis of Prameha
Upadrava: The pathogenesis of the
PU is as following [7]:

- 1. Non-management of *Prameha:* May be due to late detection, self medication, medication from quacks/non-professionals, not following the diet and exercise etc will lead to complications very soon.
- 2. Prameha ati yogal excessive symptoms: may be due to genetic involvement, early onset, inadequate medications, lack of Shodhana etc may lead to complication.
- 3. Excessively vitiated *Medo dhatu:*Especially people with metabolic syndrome, or Obesity alone will give rise to complications. The *pidakas* originate from excessive vitiation of *Vasa* and *Meda* and with three *doshas*.

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4. Dhatukshaya: The factor mainly responsible for the complication to Vata which is Dhatu develop is kshayajanya and mix up with the previously vitiated Kapha and Pitha. Acharya Charaka described Prameha Upadrava not as Dosha specific, but as general symptoms in the Nidana Sthana as morbid thirst (Trishna), diarrhea (Atisara), fever (Jvara), burning sensation (Daha), debility (Dourbalya), (Arochaka), indigestion anorexia (Avipaka), suppuration of muscles (Putimamsa), carbuncles (Pidaka), pustules (Alaji) and abcess (Vidradhi) [8].

The description of Kaphaja, Pittaja and Vataja Upadravas is obviously not limited only to the respective Pramehas as Upadravas are manifested only in the terminal stage i.e. with the Dusti of all Dhatus. Kaphaja, Pittaja and Vataja Upadravas are the result of the disease according to the predominance of the respective Doshas in the severe form of Prameha.

3. Kaphaja Updrava: These upadravas manifest because of the presence of sweetness (Madhurya) of body and urine, excessive and liquefied fat (Bahu abaddha meda) and excess of interstitial fluid (Kleda vridhi) and

because of inadequate digestion and metabolism (Agnimandya). The symptoms are generally pertaining to

Srotas. The Upadravas and their probable pathology is enlisted in Table No:1:

Annavaha Srotas and Pranavaha

Table No:1: Upadrava of Kaphaja Prameha [9]

Upadrava	Causative factors	
Makshikopasarpana	This condition is the result of Tanu Madhuryata and	
A))	subsequent Madhura Bhava of Mutra & Sweda and this	
	attracts more Makshikas (flies)	
Alasya (Laziness)	This is characterized by Karma Abhava and this is due to	
	Mandaguna of Kapha and Medo vriddhi. Here there will be	
	crave for desirable touch, displeasure to discomfort and lack	
	of enthusiasm to do work	
Mamsa upachaya	Incresed musle mass due to meda upachaya	
Shaithilya(loss of	Anibida Samyogata due to excess drava dhatu	
compactness)		
Nidra	It is caused as a result of Kapha Dushti and Tamoguna in	
C6 \ _	Prameha	
Pratishyaya (Running	This is caused due to Kapha Srava	
nose):		
Kasa	Productive cough (Dalhana)	
Swasa	Difficulty in breathing due to Kasa vriddhi/ Sthoola upadrava	
Arochaka:	In spite of normal appetite, the person is incapacitated to	
	perceive taste and dislikes to eat food.	
Avipaka	it is due to agnimandya and will lead to ama formation	
Kapha praseka	It means excess Lalasrava due to Kapha Bahudravata	
(Excess salivation)		
Chardi	It is defined as Bahirgamana (expelling) of Dosha through	
	Mukha due to all the doshas causing Utklesha (increase) in	
	Amashaya	
	Makshikopasarpana Alasya (Laziness) Mamsa upachaya Shaithilya(loss of compactness) Nidra Pratishyaya (Running nose): Kasa Swasa Arochaka: Avipaka Kapha praseka (Excess salivation)	

4. Upadrava of Paithika Prameha:

Generally, Pitta is involved in the samprapti by loss of fluid tissue from the body (Apdhatukshaya) and resultant involvement of Rakta. So, the symptoms pertaining to Udakavaha Srotas are remarkable.

Table No:2: Upadrava of Pithaja Prameha [9]

SI	Upadrava	Causative factors	
No		JAL OF AL	
1	Vrush <mark>ana avadara</mark> na	This is defined as Vidarana (break/tear) or Visheerana of	
		Vrushana due to Vranashopha as a result of Pitta and Rakta	
		Dusti causing Avadarana of Vrushana	
2	Basti bheda	Tearing kind of pain in basti	
3	Medhraa Toda	Pricking pain over scrotum	
4	Hritshoola (Cardiac	Is a condition where there is Shoola in the Hridaya due to	
	pain)	Vyana Dusti as a result of Avarana by Kapha and Pitta	
5	Pipasa	It is defined as Paneeya Sevana Iccha. If Trushna develops	
		as a Upadrava of Prameha, it is described as Asadhya	
	2 10 -	(incurable) and also, if neglected or if developed as	
	06	Upadrava, Trishna will results in Marana (death)	
6	Daha	In Prameha, if there is severe Dhatukshaya which is the	
		leading cause for Daha especially in Hasta (palm) and Paada	
		(sole)	
7	Amlika (Sour	Develops as a result of Shuktaaharapaaka due to	
	belching)	Agnimandya caused by Pitta	
8	Atisara	Due to increase in Sara guna of Pitta	
9	Jwara	Ushna guna of Pitta& Agnimandya	
10	Panduroga	This is a Pittapradhana Vyadhi where due to	
		Dhatvagnimandya there is Rakta Dhatu Poshaka Sara Bhaga	
		Kshapana leading to Panduroga which may lead to Peeta vit-	
		mutra –netrata	

11	Moorcha (Faint)	This is defined as Chetanachyuti where there is		
		Kaastavatpatana of the patient and he is unable to		
		experience Sukha and Dukha. This is mainly due to Pitta and		
		Rakta Dusti. This phenomenon is a very common Upadrava		
		of Prameha due to Dhatukshaya		
12	Nidra nasa	Pitta vriddhi		

5. Vatika Upadrava

Because of Sarvadhatu kshaya& Ojakshaya or due to Avarana by Kapha or Pitha, degenerative complications will develop in a person.

Table No:3: Upadrava of Vatika Prameha [9]

SI	Upa <mark>drav</mark> a	Causative factors		
No				
1	Hri <mark>dgra</mark> ha	A condition where patient experiences as if his heart is		
		being pulled out. This is a symptom of Hridroga that is		
		clinically evident as Upadrava of Prameha		
2	Shar <mark>eera</mark> Balahaani	may be due to Alpapranata, were there will be Manasika		
	C6 \ _	Daurbalya and due to Mamsopachaya (inadequate		
V		nourishment of Muscle) as a result of Dhatusara Vahana		
		in the form of Kleda through Mutra. These causes in		
		total lead to Ojonasha causing Daurbalya.		
3	Loulya:	condition where there is an abnormal desire to have all		
	PAt	Rasas described as Sarvaraseshu Loluptvam due to		
		Vata Vriddhi as a result of Dhatu Kshaya		
4	Sthambha (Stiffness)	Sthambha is a condition where there is increased Sheeta		
		guna of Vata .		
5	Kampa (Tremor):	Kampa is due to increased Chala guna of Vata		
6	Shoola	pain at different sites May happen when the disease		
		proceeds to involve Gambira Dhatus like Majja		

7	Nidranasha and Anidra	Due to Pitta and Vatavriddhi		
	(Disturbed sleep):			
8	Shwasa	due to Marmabhighata like Hridaya, which is		
		Pranavahasrotomoola		
9	Baddha Pureeshata	It is mainly due to Vata Vruddhi which will definitely		
		causes shoshana of dravamsha due to its ruksha guna		
		leading to Baddhata of purisha		
10	Udavarta (Upward	Baddha Pureesha and Vata causes Udavarta		
	movement of Vata)			
11	Shosha (Depletion)	It is due to the Dhatu Kshaya occurring in Prameha		
	1236	especially vataja leading to shoshana of shareera		

6. Prameha Pidaka:

Prameha Pidaka are mentioned in the Sutrasthana itself while describing about the vital principle (Ojus). So we can infer that, Pidakas manifest as complications when there is a deterioration of Ojus. Pidaka develops when Vasa and Meda are excessively vitiated in a Prameha Rogi. According to Acharya Sushruta, Pidaka mainly originates in the lower limb because of the weakness of Rasayanais which circulate Rasa and Rakta by the accumulation of Pitha and Kapha.

Table No:4: Names of Pidaka in Bruhattrayi

Pidaka	Charaka	Sushruta	Vagbhada
Saravika	+	+	+
Kacchapika	+	+	+
Jalini	+0 W	+30	+ 7 10
Vinata	+	+	+ /
Alaji	+	+	+
Masurika		+	+
Sarshapi	+	+	+
Putrini	_	+	+
Vidarika	_	+	+
Vidradhi	+	+	+

Pidaka Upadrava: Thirst, dyspnoea, suppuration of muscles, confusions, hiccups, delusions, fever, erysepals(visarpa) and cessation of functions of vital parts [10].

7.Principles of Management

Dosha based upadrava is a unique description for Prameha Upadrava by Ayurvedic classics. But for these upadrva, treatment or line of treatment is not explained by the same authors. As Prameha Pidaka Chikitsa is detailed, the line of treatment of other Upadravas can be derived from this. Acharya Charaka describes the treatment of Prameha Pidaka as Surgical management (Shastra Chikitsa) which is to be done by the experts [11].

Acharya Sushruta, the Pioneer of Surgical managent describes the treatment of Prameha Upadrava in a separate chapter of Chikitsa Sthana. The treatment principle is as follows: In the premonitory stage of Prameha (Purva rupa) itself, use of Vanaspathi Kashaya along with Bastha mutra is indicated to prevent the onset of Pidaka. Once the symptoms of Prameha manifest (Rupa), cleansing therapies (Urdha adho Sodhana) should be done. Once the Pidaka develop complication, in the unripened stage, the management principle inflammatory swelling (Sopha) is to be adopted. Once it goes to the ripened

stage or Ulcerates, surgical management followed by wound care is necessary. In the end stage, the Pidaka becomes incurable (Asadhya)- if the pus goes deep in to the tissues and result in the damage of large amount of tissues [12].

If we analyze Pitaka Chikitsa, for other start treating Upadravas, in the Prameha Purva rupa stages itself. For example, if a person develops karapada daha in the Purvarupavastha start using Shadanga Kahaya. If not, do Prameha Chikitsa- Urdha adhah sodhana. These two stages are for the prevention of complications. If purva rupa or rupa of upadrva is manifested, any symptomatic management accordingly by giving special care to Prameha. For this, formulations having common indication of Prameha and that particular upadrava

Specific drugs indicated for the Pidaka are Aragyadhadi Kashaya for Utsadana, Shalasaradi Kahaya for Parishechana, Pippalyadi Kashaya for Pana and Bhojana, Padha Chitrakadi yoga for Prashana, Navayasa churna, Loharishta etc.

7. Discussion:

Apart from the acute metabolic complications, the contemporary medical system does not possess effective management for the complications of DM. By proper evaluation of the stage of Prameha and Prameha upadrava, we can care for the patients in a better way. Classical reference on Madhumeha Upadrava covers a wide range of diseases/ syndromes. Formulations/therapies with common indications for those diseases and Prameha will be appropriate. Some examples are given in the table no 5

Table No:5: Examples for Useful formulations for Prameha Upadrava:

Formulations	Indications
Dh <mark>anwant</mark> ara ghrita	Prameha, Pitaka, Pandu, Swasa
Kalyanaka Kashaya	Loulya
Shadanga Kashaya (Mentioned as Oudaka	Burning sensation/ Daha
kanda kashaya by Acharya sushruta,	
Specifically for the symptom Daha)	
Gayatryadi Kashaya, Drakshadi Hima/Phanta	Trishna
Kataka khadiradi Kashaya	Prameha, Dyslipidaemia
Dashamula	Prameha, Sotha
Navayasa Churna	Prameha, Pandu
Udwartana with Kolakulathadi Churna	Sthambha, Avarana janya
	madhumeha

8. Diabetic Complications and their management: Evidence based Practices:

The Shadkriyakala of Prameha, especially Sthana samhraya, Vyakti and Bheda needs extensive researches to derive clearer concepts which is to be utilized for the comprehensive treatment. Lacunae in the management of acute complications of DM exist in PIJAR/July-August-2020/VOLUME-5/ISSUE-4

Ayurvedic field. Non-published expert experiences which are safe and effective are not available in the public domain. Most of the published works in the management of complication of DM, rationale for selection of drugs and study designs is not always properly described. Maximum works are conducted in Diabetic neuropathy. An analysis of complications of DM in

Ayurvedic perspective from Classics as well as some published literature will be useful.

- a) Diabetic Nephropathy: It is considered as Basti marmabhighata due to ksharana of utharothara dhatu in Mutra (Akarshini et al). Clinical study with Shilajatvadi vataka, Punarnava mandura, Triphala guggulu, Pippalimuladi paneeya with Amrita and Bhringa raja for 48 days- Significant improvement in microalbuminuria. [13]
- b) Acute metabolic complications: No available researches mentions the treatment of Acidosis, Ketotic coma etc. Trishana, Amleeka etc can be considered as acute complications progressing to Murcha/Coma. Hence, incorporating Trishn and Murcha Chikitsa will be beneficial.
- c) **General Symptoms:** Paka/ Kotha at different areas can be considered as infections, lymphadenopathy, febrile responses etc where Jwara and Visarpa Chikita can be adopted.
- d) **Diabetic Neuropathy:** Peripheral Neuropathy is one of the most troublesome micro vascular complications of Diabetes Mellitus. Micro vascular and macrovascular complications are due to Kaphavrita vata/Meda avrita vata or due to dhatu PIJAR/July-August-2020/VOLUME-5/ISSUE-4

kshaya janya. Hence Kaphavrita vata treatment principles or Urusthambha Chikitsa principles will be giving good results in the Diabetic neuropathy symptoms. Burning sensation is the most common symptom of diabetic peripheral neuropathy which is referred a 'Daha' in our classics. According to Dalhana, daha is happening due to the loss of fluid tissues (Ap dhatu) and resultant Pitha Vrudhi. The treatment for daha is Niruha with Nyagrodhadi Kashaya without adding Taila. Internal use of porridge prepared out of rhizomes which retain water (oudaka kanda) can be beneficial. Dalhana clarifies Oudaka Kanda as Shadanga Kalpa [14]. Other than the classical references, the following are some of the evidence based medicines used in Diabetic neuropathy.

- Jeevaneeya & Balya drugs (Dwivedi et al) [15]
- Dasamula+ Madhyama Pancha mula+
 Vanga Bhasma (Tiwari Priyaranjan)
 [15]
- Bhunimbadi churna with madhu & ghrita- (Nisha K et al)- significant electrophysiological changes with reduction in FBS, PPBS & S. Cholesterol [15]

- Comparison with Dasamoola kwatha 40 ml bd& Vasantha Kusumakara rasa 125 mg bd- Significant reduction in tingling sensation, numbness, paraesthesia, pain with better overall clinical outcome with Dasamoola Kwatha (Kokane Deepti et al) [15]
- Jhinjhini vata chikitsa from Bhaishajya ratnavali, Used Dasamula extract+ Pushkara mula extract+ Hingu along with abhyanga with Masha taila (Jaideep et al) [15]
- Gokshuradi guggulu and Twak choorna lepa Vs Sahacharadi Kashaya and Ela churna lepa (Tantri V et al) [15]
- Gokshura, Guduchi, Aswagandha processed with Dashamula kwatha (Niranjan et al) [15]
- e) Diabetic Retinopathy: This condition is considered as Timira due to Vatavridhi (Shrikanth Kulkarny)
 [16] and Netra Tarpana wih Mahatriphala ghrita and Durvadi ghruta are useful for the same.
- f) Klaibya/ Erectile dysfunction: with Aswatha Ksheerapaka (Veerani NV et al) [17]
- g) **Diabetic Ulcers:** In diabetic patients, wounds are critical, difficult to heal and often prone to infection. The impaired healing might be due to glucose laden tissue, atherosclerotic changes and *PIJAR/July-August-2020/VOLUME-5/ISSUE-4*

- peripheral neuritis. Diabetic wounds might end in the amputation of the limb, if not treated properly. Dushta vrana line of management is adopted in general. Case study with application of leaf paste of Katupila leaves (Securinga leucopyrus) in gangrenous diabetic ulcer for seven days markedly reduced tenderness, swelling, odor and (Ahmed Shahan Ajmeer et discharge al) [18]. Madhu and Nimba kwatha local application is also good. Combination of Pancha valkala kwatha, Jathyadi taila & Kshara taila- reversed gangrenous foot ulcer (Prmar Gaurav et al) [19].Usage of traditional formulations and treatments including Jalukavacharana are also reported to be effective in Diabetic Ulcers [20].
- 9. Conclusion: Upadravas of Vatika, Paithika, and Shleshmaja Pramehas are to be understood appropriately for the effective management of the same with Ayurvedic lifestyle, medicines and procedures. The lacunae in the present Ayurvedic approach are to be corrected with well structured researches and expert discussions. Safe and effective Ayurvedic management is the need of the hour in the current health scenario.

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